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Berglund et al.

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## (54) PROTECTIVE CLOTHING ENSEMBLE WITH TWO-STAGE EVAPORATIVE COOLING

 $(75) \quad Inventors: \ \, \textbf{Larry Berglund}, Lebanon, CT \, (US);$ 

Reed Hoyt, Framingham, MA (US)

(73) Assignee: United States of America as

Represented by the Secretary of the

**Army**, Washington, DC (US)

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#### Related U.S. Application Data

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- (51) **Int. Cl.** *A41D 13/00* (2006.01)
- (52) U.S. Cl.

(58) Field of Classification Search

See application file for complete search history.

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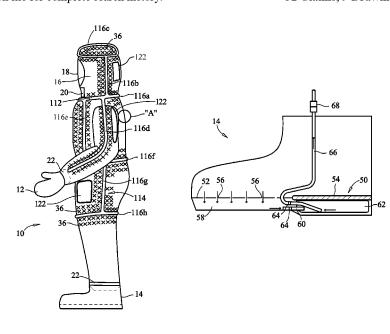
Primary Examiner — Danny Worrell Assistant Examiner — Khaled Annis

(74) Attorney, Agent, or Firm — Elizabeth Arwine

#### (57) ABSTRACT

A hazardous materials protective garment may use a twostage evaporative cooling process to ease heat strain on the wearer of the garment. The garment may include an impermeable inner layer and a wicking outer layer. One or more reservoirs may be disposed interior to the inner layer for collecting condensed and/or unevaporated sweat. One or more pumps may move the sweat to the exterior of the impermeable layer for distribution in the wicking layer and evaporation from the garment.

#### 32 Claims, 9 Drawing Sheets



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